

**Overview**

Programme Code	36343
Programme Title	Building Services Engineering
Awarding Institution	Liverpool John Moores University
Programme Type	Top-up

**Awards**

Award Type	Award Description	Award Learning Outcomes
Target Award	Bachelor of Science with Honours - BSH	N/A

Alternate Award Names	
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Partner Name	Partnership Type
International College of Business and Technology	Franchised

**External Benchmarks**

Subject Benchmark Statement	UG-Engineering (2019)
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## Programme Offering(s)

Mode of Study, Mode of Delivery	Intake Month	Teaching Institution	Programme Length Programme Length Unit
Full-Time, Face to Face	March	ICBT, Colombo	1 Years
Full-Time, Face to Face	September	ICBT, Colombo	1 Years

## Aims and Outcomes

Educational Aims of the Programme	<p>The overall aim of the programme is to develop knowledge, understanding and intellectual and practical skills appropriate to a variety of roles within the Building Services Engineering sector. The intention is to provide a stimulating and challenging programme of study that accurately reflects the activities in the Building Services Engineering industry and prepares students for effective, productive and responsible employment in the sector. The programme will offer the appropriate type and level of support as students build their knowledge, understanding and skills to become independent learners for the future. Since the programme has a bias towards providing students with engineering skills and knowledge and the design of engineering services systems for buildings, it is suited to those employed in or seeking employment in the design and consultancy arm of the Building Services Engineering industry. To facilitate study for employed students the programme is offered in part-time as well as full-time attendance mode. The specific aims of the programme are to provide:</p> <ol style="list-style-type: none"> <li>1. A programme of study in Building Services Engineering which facilitates acquisition of the essential skills and knowledge of the subject supported by industry.</li> <li>2. The appropriate learning experiences to enable students to develop their skills and attitudes as independent researchers and innovative problem solvers to the fullest potential in the Building Services Engineering Sector.</li> <li>3. An awareness of existing and future issues in the construction and property industry and how they are likely to impinge on the role and function of the Building Services Engineer.</li> <li>4. Opportunities for development of the student's interpersonal and communication skills, with special reference to aspects of Engineering, Technology, Design and Management.</li> <li>5. Opportunities for development of the student's professional attitude commensurate with that of the practicing Building Services professional and to permit them to specialise in selected areas of Building Services Engineering.</li> <li>6. Raised awareness of the responsibilities of the Building Services professional in relation to sustainability, energy efficiency and environmental issues within the built environment.</li> <li>7. To ensure that successful graduates will have the potential to contribute to significant advances in engineering and technological issues associated with their chosen industry.</li> <li>8. To provide students with appropriate learning experiences to enable them to develop their skills and attitudes as independent researchers and innovative and creative problem solvers to the fullest possible potential in the Building Services Engineering sector.</li> <li>9. To prepare students for the transition from Higher Education to employment within a professional context; and develop those transferable, specialist and employability skills that all stakeholders could reasonably expect of students who successfully complete a Building Services Engineering programme.</li> </ol>
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## Learning Outcomes

Code	Number	Description
PLO1	1	Apply mathematical and scientific skills that are relevant to the various disciplines within the Building Services Engineering industry.
PLO2	2	Critically evaluate the appropriateness of different approaches to solving problems.
PLO3	3	Critically analyse and evaluate complex concepts and theories.
PLO4	4	Critically analyse and integrate information and data from a variety of sources.
PLO5	5	Use standard as well as specialist building services engineering, commercial or construction computational tools and packages effectively.

PLO6	6	Prepare technical reports/drawings appropriate for a range of technical and non-technical purposes.
PLO7	7	Make technical presentations to specialist and non-specialist audiences.
PLO8	8	Use construction and building services engineering literature effectively.
PLO9	9	Work as an effective member of a team.
PLO10	10	Use information and communications technology effectively.
PLO11	11	Manage resources and time effectively.
PLO12	12	Apply the fundamental concepts, principles and theories of Building Services Engineering.
PLO13	13	Manipulate and sort data.
PLO14	14	Present data in a variety of ways.
PLO15	15	Develop their own communication skills.
PLO16	16	Demonstrate team-working and leadership skills.
PLO17	17	Work effectively with others.
PLO18	18	Apply appropriate legal, economic, design, environmental business and management techniques that are relevant to Building Services Engineers and other professionals working within the construction and building services industries.
PLO19	19	Demonstrate a detailed knowledge and critical understanding of the essential facts, concepts, principles and theories relevant to the Building Services Engineering profession.
PLO20	20	Apply technical solutions to complex design problems.
PLO21	21	Demonstrate an understanding of the limits of their knowledge of their own specialist area together with other associated engineering fields and how this influences analysis and interpretations based on that knowledge.
PLO22	22	Apply project management skills related to Building Services Engineering projects in the construction sector.
PLO23	23	Apply the legal, economic, design, environmental, business and management techniques that are relevant to Building Services Engineers and other professionals working within the construction industry.
PLO24	24	Identify and solve complex problems.

## Course Structure

Programme Structure Description	The programme is offered in full-time mode.
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Programme Structure - 120 credit points	
Level 6 - 120 credit points	
Level 6 Core - 120 credit points	CORE
[MODULE] 6500ICBTBS Construction Site Management Approved 2022.01 - 20 credit points	
[MODULE] 6505ICBTBS Building Services Engineering Project Approved 2022.01 - 20 credit points	
[MODULE] 6501ICBTBS Environmental Analysis Approved 2022.01 - 20 credit points	
[MODULE] 6502ICBTBS Buildings, Energy and Sustainability Approved 2022.01 - 20 credit points	
[MODULE] 6504ICBTBS Building Engineering Research Project Approved 2022.01 - 40 credit points	

## Teaching, Learning and Assessment

Teaching, Learning and Assessment	The programme will be delivered using a mixture of lectures, tutorials, workshops, laboratory practical classes and design studio sessions. All aspects of the programme will seek to develop vocationally relevant skills and knowledge. Assessment will be carried out using a mixture of examinations and coursework; specifically assessments could consist of formal unseen examinations, in-class open book tests, online multiple choice tests, technical and/or research based written reports, and simulated design projects.
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## Opportunities for work related learning

Opportunities for work related learning
The modules and assessments have been carefully planned to mimic real projects that the student would encounter in the workplace.

## Entry Requirements

Type	Description
Other international requirements	Higher National Diploma or Professional Diploma in Building Services Engineering as awarded by ICBT. From 2021 from the Higher Diploma or Professional Diploma in Building Services Engineering awarded by LJMU. Admission from other cognate qualifications, mapped against the home BSc (Hons) Building Services Engineering will be considered under the LJMU RPEL procedures.

## Programme Contacts

### Programme Leader

Contact Name
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### Link Tutor

Contact Name
Alison Cotgrave